

## **REMARKS**

### **Rejections**

#### ***Rejections under 35 U.S.C. § 101***

##### **Claims 8-10, 13 and 14**

Claims 8-10, 13 and 14 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Applicant has amended independent claim 8 to recite “executable instructions, which when executed, cause a device” as suggested by the Examiner. Because claims 9, 10, 13 and 14 depend from claim 8, Applicant respectfully submits that the invention as claimed in claims 8-10, 13 and 14 is statutory subject matter, and respectfully request the withdrawal of the rejection of the claims under 35 U.S.C. § 101.

#### ***Rejections under 35 U.S.C. § 102(b)***

##### **Claims 1, 8, 15 and 22**

Claims 1, 8, 15 and 22 stand rejected under 35 U.S.C. § 102(b) over “Competitive Learning and Vector Quantization in Digital VLSI Systems” to Card et al.

Card discloses competitive learning among nodes, i.e., artificial neurons, in an artificial neural network, in which the competing nodes learn to represent various vector quantization codebook entries as their weight vectors [Card: pages 195-196, § 1 (Introduction) and Figure 1].

The Examiner is equating Applicant’s claimed finite mixture model with the artificial neural network in Card. However, Applicant respectfully points out that an artificial neural network is not a known equivalent to a finite mixture model as the terms are defined in the art [*see* the definition of a finite mixture model at page 41, § 3, ¶ 1 of “Document Classification Using a Finite Mixture Model” to Li et al. (cited by the Examiner)]. Therefore, Applicant assumes the Examiner is asserting that an artificial neural network can be programmed to represent a finite mixture model. Even if this assumption is correct, Card does not teach or suggest selecting a finite mixture model, i.e., one artificial neural network, from a set of finite mixture models, i.e., multiple

artificial neural networks, as claimed by Applicant. Instead, Card discloses the selection of nodes within a single artificial neural network. Moreover, Card does not disclose that a single artificial neural network can represent a set of finite mixture models. Therefore, Card cannot be properly interpreted as disclosing the selection of a finite mixture model from a set of finite mixture models as claimed by Applicant.

**Allowable Subject Matter**

Applicant thanks the Examiner for indicating that claims 2, 3, 6, 7, 9, 10, 13, 14, 16, 17, 20, 21, 23, 24, 27, and 28 are patentable over the prior art of record. Because Applicant believes that all the pending claim are allowable, Applicant has not amended the allowable claims at this time.

**SUMMARY**

Claims 1-3, 6-10, 13-17, 20-24 and 27 and 28 are currently pending. In view of the foregoing remarks, Applicant respectfully submits that the pending claims are in condition for allowance. Applicant respectfully requests reconsideration of the application and allowance of the pending claims.

If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact Sue Holloway at (408) 720-8300 x3476.

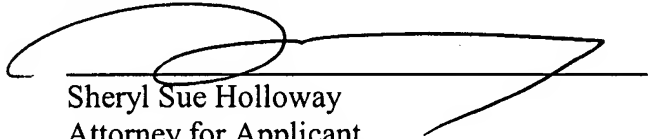
**Deposit Account Authorization**

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due. Furthermore, if an extension is required, then Applicant hereby requests such extension.

Respectfully submitted,

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